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Attention - SWEET CORN GROWERS

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DO YOU
KNOW ABOUT
THE MARCROSS HYBRIDS?



Will Wilt Disease Strike Your Fields This Year?





PEDIGREE SEEDS

Hybrid sweet corns,
potatoes, oats, peas,
barley, wheat, rye,
cabbage, field corn,
field beans, soy beans,
clovers and grasses.

FARM CHEMICALS

Seed disinfectants,
seed inoculants,
fertilizers, sulphur,
gypsum, lime,
dust and spray materials.
Also drain tile.



HONEOYE FALLS, N. Y.

To Sweet Corn Growers Everywhere:-

Last year the dreaded wilt disease of sweet corn moved farther north into New England, New York, Pennsylvania, Ohio and Indiana, and caused more loss of sweet corn than is generally realized. Another mild winter warns us of probable farther spread northward in 1939. Every sweet corn grower should consider the chances of wilt striking in his locality this summer and, if that is likely, should guard against loss by using wilt resistant hybrids. More detailed information is given over the page. Be sure to read it.

In the few years since hybrid sweet corns were first introduced commercially, hundreds of tests by experiment stations and thousands by growers have proved that the better hybrids do produce from 25% to 100% more ears or larger ears per acre; and that they are more uniform and of better quality.

At first only a few hybrids were available. Now since plant breeders are developing more and better inbreds for crossing, we have many more hybrids to select from. It is therefore necessary to revise each year our list of hybrids in order to furnish our customers with the best available. These changes are expensive for us and confusing for you but they mean advancement.

The following are outstandingly good hybrids. From them you can select one or a combination to meet your particular market requirements. For the home gardeners there is the Family Garden Assortment (slightly changed) that has given so much enjoyment. Please read the descriptions carefully.

Hybrid Sweet Corns

NOTE—Descriptions following are based on good growing conditions. Ripening periods are approximate for Western New York, Central Pennsylvania, Ohio, Michigan, Northern New England. Near the ocean, longer periods may be required. Very early plantings require longer and late plantings require shorter periods. Moisture and temperature variations from normal affect the period.

Germinations range from 90% to 98%. Seed is treated with Semesan Jr.

COCKCROW. 62-66 days here, 22 earlier than Golden Cross.

Parents. Golden Gem and Golden Early Market Inbred C13.

Ears. Mostly 12 rowed, 6½" to 7½", light golden, broad kernels, sweet and tender. Good appearance.

Wilt Resistance. Susceptible. Should be used only where wilt disease does not occur.

Yields. 25% to 35% better than its parents. Stalks 5'.

Remarks. Cockerow has the extreme earliness of its parents and combines quite well the prolificacy and quality of Gem with the size and type of Early Market. It ranks with the earliest in most tests and is definitely better market type than some.

WHIP-MARCROSS C6.13. 62 to 66 days here, a little earlier than Golden Early Market, 22 days earlier than Golden Cross, several days earlier than Spancross P39 and Gemcross P39.

Parents. Whipple's Yellow Inbred C6 and Golden Early Market Inbred C13.

Ears. Mostly 12 rowed, 7" to 7½", light golden, round kernels, quality "very good", fine uniformity, excellent appearance.

Wilt Resistance. Very high resistance. Equal to Golden Cross.

Yields. 35% more and 20% larger ears than Golden Early Market; about 75% as many ears as Golden Cross. Stalks 5.5'.

Remarks. This is the first real early yellow hybrid that is safe to use in wilt infected areas. Moreover, it is of very good market type. It will be a money maker in those areas.

BAN-MARCROSS R. C13. 72 to 76 days, 10 days later than the foregoing, 12 days earlier than Golden Cross. Replaces Spancross P39, Gemcross P39 and Whipeross C6.2.

Parents. Quaker Hill Bantam Inbred R and Golden Early Market Inbred C13.

Ears. Mostly 12 rowed, 7" to 8", golden, excellent type, better quality than the one preceding but not quite as uniform in ripening.

Wilt Resistance. Not thoroly tested but apparently 85% to 95% resistant under severe wilt conditions..

Yields. About 90% of Golden Cross. Stalks 6'.

Remarks. This hybrid is of better quality than the Spancrosses, more wilt resistant than the Gemcrosses, Sunecross P39 and several others and more productive than Whipeross C6.2. We recommend it for replacing all these and other midseason hybrids.

QUAKER HILL O K. 80 to 84 days here, 2 to 4 earlier than Golden Cross.

Parents. Whipple's Yellow Inbred C2 and Bantam Inbreds P39 and Quaker Hill R, in a 3-way cross.

Ears. 12 to 14 rowed, 7" to 8", larger diameter, good shape, well filled. Round deep golden kernels. Good quality. Not as uniform in ripening.

Wilt Resistance. Good in Jersey trials last summer.

Yields. Better than preceding hybrids, practically equal to Golden Cross, 50% to 75% better than Golden Bantam. Stalks 6' to 7'.

Remarks. A little earlier than Golden Cross and a thicker ear, ripening over a longer period are advantages in some cases.

QUAKER HILL X L. 82 to 86 days here, 4 earlier than Golden Cross.

Parents. Bantam Inbreds P39 and Quaker Hill R.

Ears. Mostly 12 rowed, 7½" to 8½", good type and uniformity. Round, deep kernels of Bantam flavor, tenderness and color.

Wilt Resistance. Proven very good.

Yields. Averaged 4% better than Golden Cross in 10 experiment station tests. Stalks 7'.

Remarks. Slightly earlier, better flavor, ears a little larger and usually a little better yield than Golden Cross. Try it.

GOLDEN CROSS BANTAM. 84 to 88 days here, 6 later than Bantam.

Parents. Purdue Bantam Inbreds 39 and 51.

Ears. 12 rowed, 7" to 8", light golden, ideal type, good size yet not too large, very uniform, and exceptionally attractive. Out sells all other corns. Very high percentage marketable. Kernels narrower and deeper than Golden Bantam, very tended and sweet.

Wilt Resistance. Nearly 100% resistant to wilt. Makes nearly a full crop when other varieties fail completely under severe wilt.

Yields. Usually 50% to 100% better than any open pollinated corns ripening as early or earlier. Many plants produce two full sized ears ripening together. Stalks 6' to 7'.

Remarks. Golden Cross has proven highly satisfactory whenever length of growing season and market requirements are right. It ranks very high in quality and yield and well deserves its popularity.

Our Golden Cross has been for some years 100% white tasseled and silked. This indicates purity of the inbred parents, care in production and resulting better yields and greater uniformity. Quaker Hill Golden Cross is one of the best.

Family Garden Assortment

Here is a package of assorted hybrid sweet corn seeds, ripening in succession, that provides an average family with an abundance of delicious fresh sweet corn from early summer till fall and plenty to can for winter. It includes 4 oz. each, Whip-Marcross C6.13, Ban-Marcross R.C13, and 1 lb. Quaker Hill X L, with directions for planting. Lots of enjoyment and real savings on food costs come in this package. Decide now to feast on sweet corn this summer. For health and happiness and — yes, for food economy too, plant our sweet corn assortment. Price \$.70 post paid in U. S.

Prices - All Hybrids

Bags Free. Prices subject to change without notice. Orders subject to confirmation. All hybrids are priced as follows, except Whip-Marcross C6.13 which is priced 10¢ per lb. higher:

Post Paid, ¼ lb. 20¢; ½ lb. 25¢; 1 lb. 35¢; 2 to 19 lbs. 25¢ per lb.

Freight collect, 20 to 99 lbs. 20¢; 100 lbs. or more, 18¢ per lb.

Above prices are for flat kernels. We offer round kernels at 5¢ less per lb. They produce fully as well but require different plates. Two pounds or more of one hybrid take price applying on total weight of all hybrids ordered. Less than two pound packages take their own rates.

Terms: Cash with order or C. O. D. on arrival with collection fees added. On deferred C. O. D. shipments, 25% is required with order.

Yours for the best in sweet corns.

K. C. LIVERMORE

Wilt Disease Of Sweet Corn

PREVIOUS OCCURRENCES

This disease is generally present south of the Mason and Dixon line and has greatly restricted sweet corn production there. During the periods of 1894 to '97 and 1931 to '33 wilt spread northward and caused serious losses to sweet corn growers in sections usually free from it. Each time these outbreaks were terminated by a severe winter.

Last summer wilt advanced again into Southern New England, Hudson Valley, Southern Pennsylvania, Central Ohio, Indiana and Illinois. Many poor crops and failures of sweet corn that were blamed on seed, weather or something else, were really due to wilt disease. Losses may be more serious this season.

NATURE OF THE DISEASE

Wilt affects all sweet, pop, and field corns but is most destructive in early varieties, frequently causing complete loss of the crop. It is caused by a strain of bacteria which finds entrance to the plant by root, stalk, or leaves, fills up the vascular system and so cuts off the sap circulation and causes the plant to wilt. If infection occurs late enough a crop may be secured.

Early infection usually is at the base of the plant. Wilting and withering progress upward till the stunted plant is dead. Later infections may start anywhere at any stage. The wilting usually spreads first in streaks along the leaves or stalks, then the streaks merge till the entire plant is dead, but sometimes the wilting diffuses quite rapidly. The wilted leaves are not yellowish but grayish brown. The spread from plant to plant may be slow or it may be so rapid that apparently healthy fields will succumb in a few days. The bacteria causing wilt may be squeezed out of the sap tubes of a freshly cut end of a diseased stalk. They appear as a sticky yellow substance.

The bacteria winter over in the seed and in the bodies of certain insects, and they probably survive at least one winter in the soil and in refuse. They are spread from plant to plant by corn rootworms, twelve spotted cucumber beetles, flea beetles, leaf hoppers, thrips, chinches, and possibly by horses, men and machines moving along the rows. Weather conditions favorable for the insects hasten spread of the disease. Mild winters like this one with shallow freezing of the soil, are followed by greater insect populations and more rapid spread of wilt. Severe winters seem to be the only natural check to the disease. No satisfactory control methods have yet been devised.

SUSCEPTIBLE AND RESISTANT CORNS

All the old varieties of early sweet corns, both white and yellow, are very susceptible, as are also early flint corns. Midseason varieties are less susceptible and late varieties, especially white, are least susceptible. Such fine varieties as Golden Gem, Golden Early Market, Whipple's Early Yellow, Golden Sunshine, Golden Bantam and many other old favorites are so susceptible as to be worthless under severe wilt conditions.

About 1928, Dr. G. M. Smith of the U. S. Bureau of Plant Industry, working at the Indiana Agr. Exp. Sta. developed a wilt resistant inbred strain of Golden Bantam. Later Dr. D. F. Jones and Dr. W. Ralph Singleton of the Conn. Agr. Exp. Sta. at New Haven, developed wilt resistant inbreds of Whipple's Yellow. Using these resistant inbreds, and others since developed, highly resistant hybrids are now produced that can make fine crops in spite of wilt. Much credit is due these scientists for thus solving the wilt problem.

OUTLOOK FOR 1939

It seems likely (not certain of course) that wilt will be a serious factor in sweet corn production this season as far north as Central New England, the Mohawk Valley, Lakes Ontario and Erie, Southern Michigan and Wisconsin and the southern boundaries of Minnesota and Dakota. It is likely to be worse at lower elevations and near lakes and streams and less severe at higher elevations. Some localities within the area probably would escape altogether. However, with plenty of seed of resistant hybrids available, it would seem just good business sense to use only such seeds in this area this year.

RESISTANT HYBRIDS

Not all hybrid sweet corns are wilt resistant. Many are not. Some of the better ones are listed below in the order of their earliness.

Usually 95% - 98% Resistant

Marcross C13.6
Whip-Marcross C6.13
Whipcross C6.2
Whipcross P39
Golden Cross Bantam

Usually 85% - 95% Resistant

Spancross P39
Ban-Whipcross R. C13
Bancross P39
Quaker Hill O K
Quaker Hill X L

Quaker Hill Hybrids Rank High

Twenty or more experiment stations are testing new and old sweet corns. Their reports are available and worth studying. As might be expected, they show differences in yields of the same hybrids from different sources. Averaging results from '37 trials, and '38 trials so far reported, where comparisons can be made, we find that Quaker Hill hybrids compare very favorably with those from other sources. For instance, our Golden Cross Bantam in these tests averaged 8% better yields than those from other sources. There are definite reasons for this but space does not permit explanation. It is enough that you know that hybrids from Quaker Hill Farm usually rank high in the experiment station trials.

Other Good Seeds

At Quaker Hill Farm we produce also seed of the best-by-test strains of potatoes, Danish cabbage, oats, barley, field corn, wheat, rye and other field crops. From 500 to 1,000 acres of these crops are certified each year. We sell also hardy alfalfa, clover, grass, millet, and other forage crop seeds, all from approved sources. Be sure to see our general circular which describes these seeds concisely and accurately. It is instructive and the prices will interest you, too. A post card will bring you a copy.